Recommended Performance Measures for Comparison of Model Results

Caloosahatchee Water Management Plan

		GOAL	PRIORITY	DESCRIPTION
1	Environmental Criteria	Monthly flow to the estuary should be less than 300 cfs no more than 16% of the time	Required	Track number of months when the flows to the Estuary fall below the prescribed minimum flow target. The Alternative that returns the number of low flows closest to the target is deemed to have performed best under this criteria. Within the MikeSHE model, flow out of the model area (through the Franklin Lock) is considered as flow to the estuary.
2		Monthly flow to the estuary should be greater than 2800 cfs no more than 6% of the time	Required	Track number of months when the flows to the Estuary exceed the prescribed maximum flow target. The Alternative that returns the number of high flows closest to the target is deemed to have performed best under this criteria.
3		Monthly flow to the estuary should be greater than 4500 cfs no more than 1.6% of the time	Required	Track number of months when the flows to the Estuary exceed the prescribed maximum flow target. The Alternative that returns the number of high flows closest to the target is deemed to have performed best under this criteria.
4		Limit drawdown below potentially impacted wetland areas to no more than 1 foot	Required	Track drawdown in the water table aquifer (predicted by the MikeSHE model of the Caloosahatchee basin) and for cells representative of wetlands, track the number of times during the simulated 1-in-10 year drought period that the drawdown equals or exceeds 1 foot (based on comparison of stressed and unstressed conditions).
5	Agricultural Criteria	Meet 2020 Agricultural demand (1-in-10)	Required	Track the agricultural (irrigation) supply (predicted by the MikeSHE model of the Caloosahatchee basin) and compare with the projected 2020 agricultural demand. Track number of times when the supply fails to meet the projected demand. An alternative that results in no failure under a 1 in 10 drought (based upon rainfall) is deemed successful while one that has several failures is considered not desirable. When the optimization model or other tools utilizing long term data is used, then failure to meet demand no more that 3 seasons in 30 years is considered desirable.

9	Public Water Supply Criteria	Meet 2020 Public Water Supply needs	Required	Projected public water supply needs within the basin is withdrawn from the Caloosahatchee River in the model simulation. The effect on flows to the estuary is tracked. Alternatives that meet the projected public water supply needs with no detrimental impacts to flow to the estuary of agricultural needs is deemed desirable.